

Work Order ID 61527

Monday, August 30, 2010 10:18:21 AM



Page 1

Item ID: D3281-2L02

Accept



Setup Start



Revision ID:

Stop



Item Name: Floor Protector, Fwd RH (Black)

Start Date: 8/30/2010 Start Qty: 3.00



Cust Item ID:

Required Date: 9/6/2010 Req'd Qty: 3.00



Customer:

Reference:

Approvals: Process Plan: 14Date: 10-8-30 Tooling:

Date:

Run Start



QC:

Date: SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D3281

Rev E

DSI 9504

A

100

0.00



HAND FINISHING THERMOFORMING

Thermoform

Memo

0.00

Thermoforming Machine

Cut Blanks

WL 83 10/09/08

105

0.00



Dry Material

HandThermo

Memo

0.00

Hand Finishing Thermoforming

Dry Sheet as per QSI022 POLYCARBONATE

Temp: 240°FTime IN: 4:30pm 10/09/07Time OUT: 7:00am 10/09/08WL 10/09/08

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Page 2

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Required Date: 9/6/2010 Req'd Qty: 3.00

Customer:




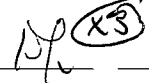

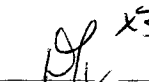
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110  Thermoform Thermoforming Machine	THERMOFORMING MACHINE Memo Thermoform as per Dwg. D3281 and Folio FTA 008 Dwg. Rev. <u>E</u> Folio Rev. <u>D</u>	0.00 0.00							 10/09/08
120  QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Memo	0.00 0.00							 10/09/08
130  Thermoform Thermoforming Machine	HAND FINISHING THERMOFORMING Memo Trim to Finished Dimensions	0.00 0.00							 10/09/08

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Page 3

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Start Date: 8/30/2010 Start Qty: 3.00



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Required Date: 9/6/2010 Req'd Qty: 3.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

140

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

Handwritten signature and circled 'x3'

10/09/08

150

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

8/10/08/17

Circled 'x3'

160

Packaging

0.00



Packaging

Memo

0.00

Packaging

PPP 61531

9/0 10/3/20 (3)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Page 4

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Required Date: 9/6/2010 Req'd Qty: 3.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

170

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/09/21 *[Signature]*
mr
10-9-20

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Picklist Print

Monday, August 30, 2010 10:18:25 AM

Page 1

Work Order ID: 61527

Parent Item: D3281-2L02

Parent Item Name: Floor Protector, Fwd RH (Black)

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 3.00

Required Qty: 3.00


Comments:

IPP Rev: A ☐ 04.07.01 ☐ New issue ☐ KJ/JLM

IPP Rev B 07.08.07 Thermoform in house DL

IPP Rev. C

Add Step 105 Dry Material 10/04/21 DL

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MLEXS.093-F6006-02		Purchased	No				sf	987.9680	4.333	12.999			
													

GE PLASTICS LEXAN SHEET

Location

therm

Loc Qty

987.968

987.968

Loc Code

110877

13 59 Fl. H 10/09/07

W/O:		WORK ORDER CHANGES					
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DART AEROSPACE LTD		Work Order: 61522
Description: Floor Protector, Fwd RH		Part Number: D3281-2
Inspection Dwg: D3281 Rev: E		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST
THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than 0.1875" Go/No Go	✓			
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

Measured by: DL	Date: 10/09/08
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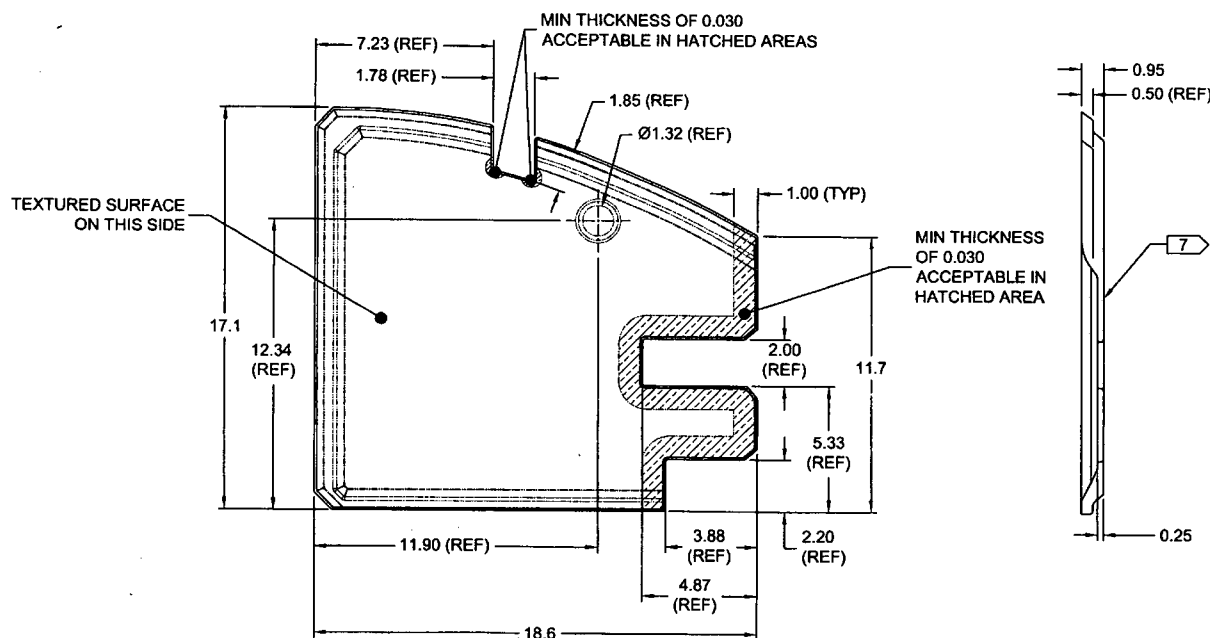
TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
18.3	+/-0.100	18.25"	✓		Tap	
17.4	+/-0.100	17.325"	✓		"	
12.1	+/-0.100	12.00"	✓		"	
0.95	+/-0.030	0.977"	✓		vern	
0.25	+/-0.030	0.280"	✓		"	
0.030	Min	0.050"	✓		MIL	
0.070	Min	0.077"	✓		MIL	

Measured by: DL	Date: 10/09/08
Audited by: E	Date: 10/09/08
Preliminary Approval: N/A	Date: N/A

Rev	Date	Change	Revised by	Approved
A	08.02.28	New Issue	KJ/DL	
B	08.04.16	Dimensions updated per Dwg Rev D	KJ/DL	
C	08.07.23	Dwg Rev updated	KJ/DL	
D	08.09.12	Tolerance revised for 0.070 dimension	KJ/DL	
E	10.09.01	Dwg Rev updated	KJ	DL

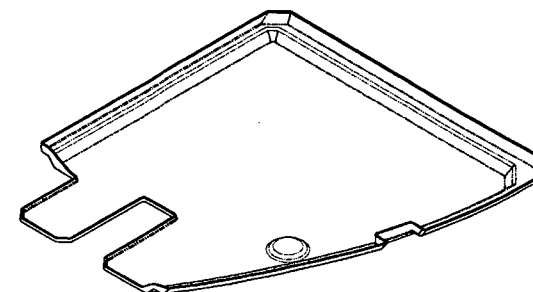
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 61527
BP10-8-30







D3281-1 FLOOR PROTECTOR

D3281-1 NOTES:

- 1) THERMOFORM WITH MOLD D3281-1T1 PER DART QSI 022; TRIM AS SHOWN
MINIMUM THICKNESS AFTER FORMING: 0.070" EXCEPT WHERE INDICATED
- 2) MATERIAL: LEXAN F6006, BLACK No. 701, 0.093" THICK
(REF DART SPEC MLEXS.093-F6006-02)
- 3) FINISH: NONE
- 4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.010 MAX
- 7) IDENTIFICATION: IDENTIFY WITH DART P/N "D3281-1" AND BATCH NUMBER "BXXXXX" ON SMOOTH SIDE OF PART USING VIBRATING STYLUS
- 8) WEIGHT: 0.95 lb



DEO ATTACHED
RELEASED
2010-02-03
MP

E	-3/4 NOW TRIMMED FLAT: RMV 0.25 BEVEL TO FACILITATE TRIMMING (ZN D8-3, D4-4)	CP	10.01.05
D	THICKNESS 0.093 WAS 0.125, MIN THICKNESS 0.070 WAS 0.080, P/N AND B/N ID WITH VIBRATING STYLUS (ZN A7-1, A7-2, A7-3, A7-4); D3281-4 NOW ON PAGE 4; CORRECT WEIGHTS (ZN A8-1, A8-2, A8-3, A8-4)	PH	08.03.28
C	UPDATE DIMS TO MATCH PARTS: COLOUR 701 WAS 700; GENERAL UPDATE	LE	07.10.09
B	NOW LEXAN; DIMS AS MANUFACTURED	CP	05.11.25
A	NEW ISSUE	CP	04.05.03
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	10.01.05		
<div>DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA</div> <div>DRAWING NO. D3281</div> <div>TITLE FLOOR PROTECTOR</div> <div>REV. E SHEET 1 OF 4</div> <div>SCALE NTS</div> <div>COPYRIGHT © 2004 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD</div>			

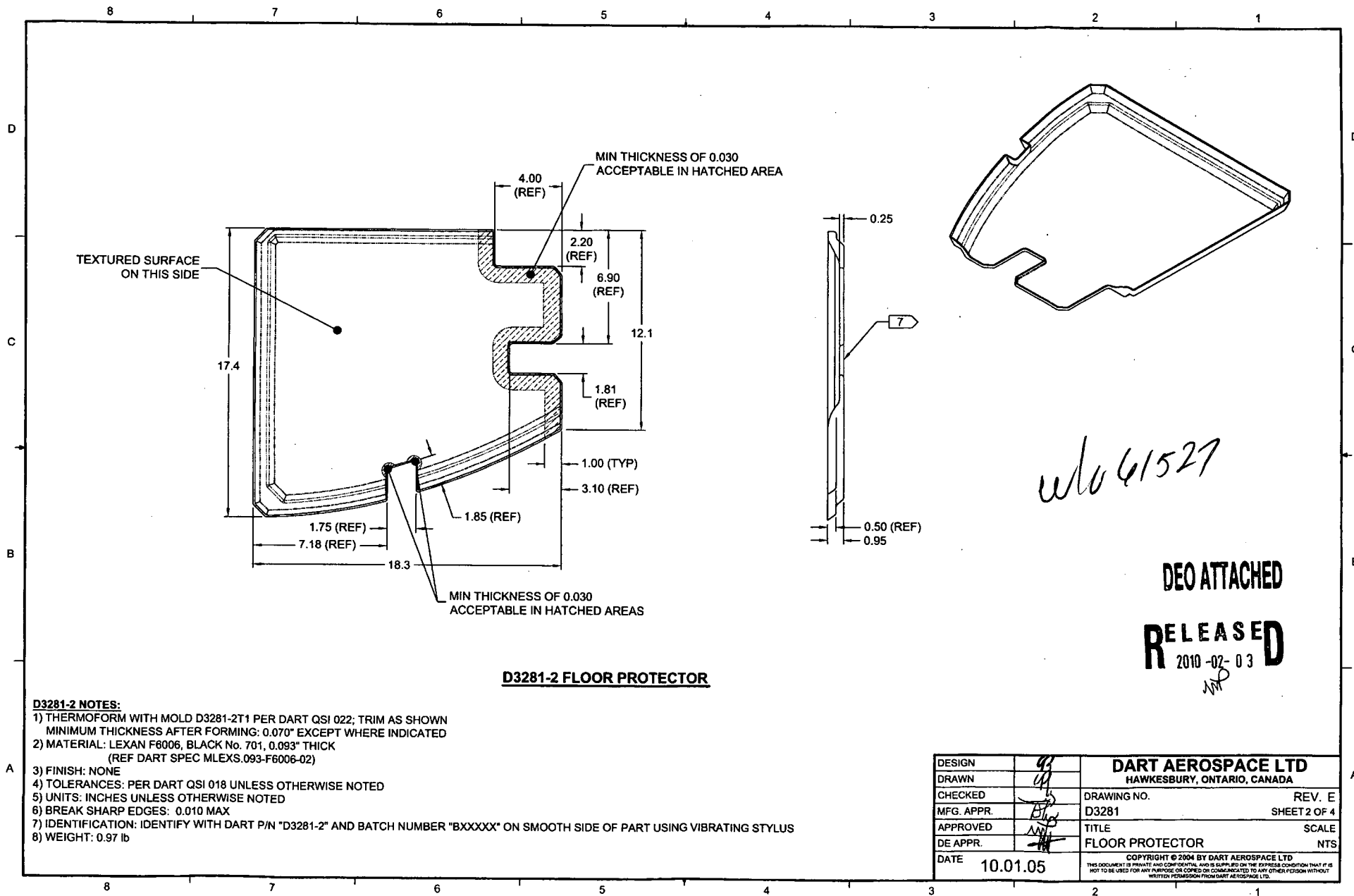
W/O:		WORK ORDER CHANGES					
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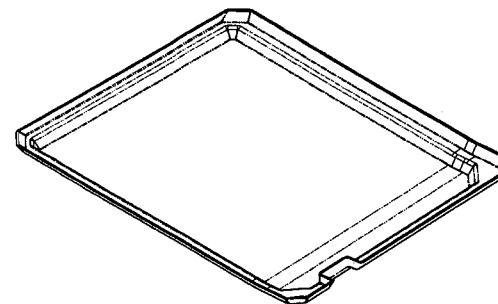
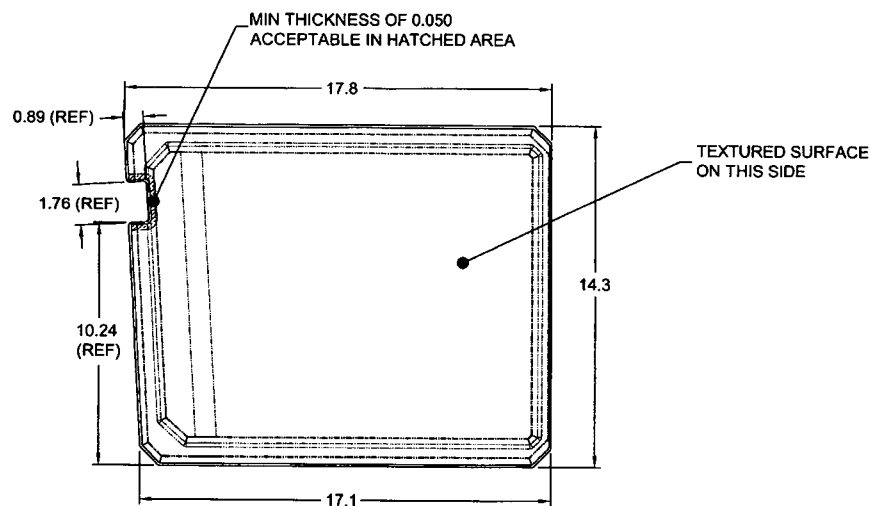
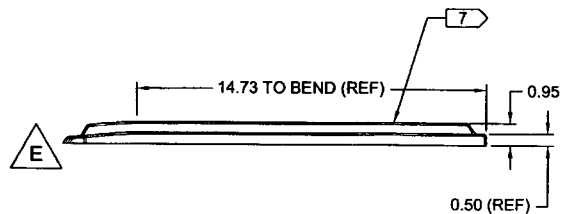
W/O:		WORK ORDER CHANGES					
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NOTE: Date & initial all entries



W/O 61527

DEO ATTACHED

RELEASED
2010-02-03

D3281-3 FLOOR PROTECTOR

D3281-3 NOTES:

- 1) THERMOFORM WITH MOLD D3281-3T1 PER DART QSI 022; TRIM AS SHOWN
MINIMUM THICKNESS AFTER FORMING: 0.070" EXCEPT WHERE INDICATED
- 2) MATERIAL: LEXAN F6006, BLACK No. 701, 0.093" THICK
(REF DART SPEC MLEXS.093-F6006-02)
- 3) FINISH: NONE
- 4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.010 MAX
- 7) IDENTIFICATION: IDENTIFY WITH DART P/N "D3281-3" AND BATCH NUMBER "BXXXXX" ON SMOOTH SIDE OF PART USING VIBRATING STYLUS
- 8) WEIGHT: 0.87 lb

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D3281	SHEET 3 OF 4
APPROVED		TITLE	SCALE
DE APPR.		FLOOR PROTECTOR	NTS
DATE	10.01.05	<small>COPYRIGHT © 2004 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

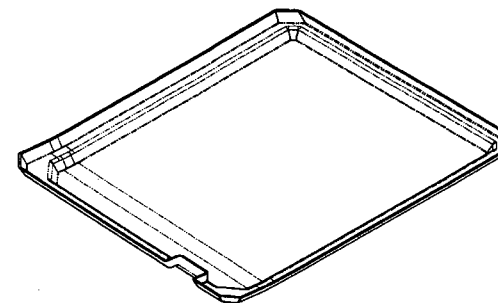
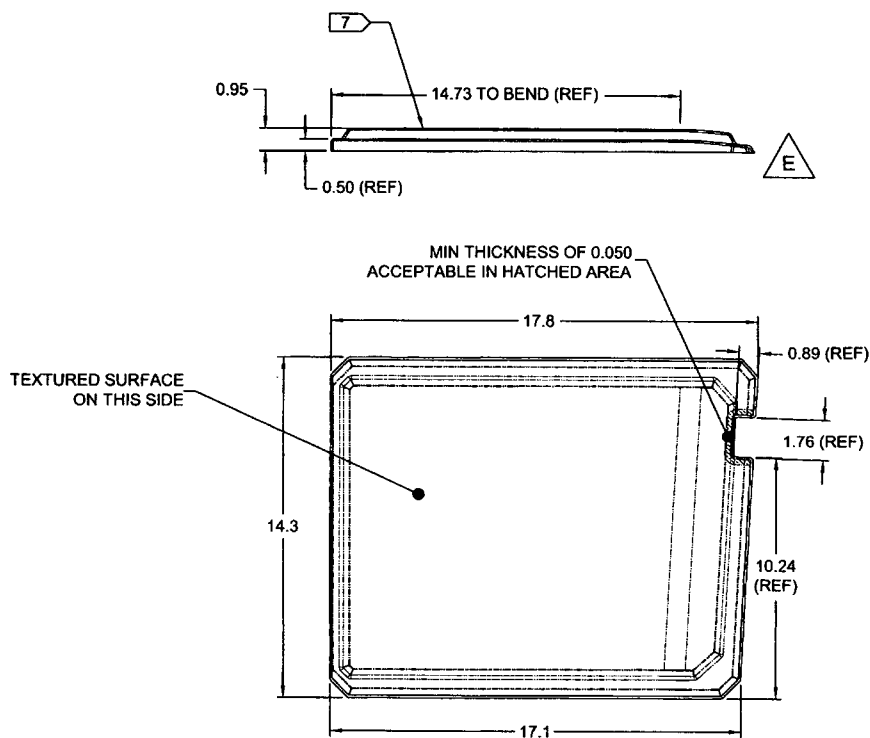
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



w661527

DEO ATTACHED

RELEASED
2010-02-03

D3281-4 FLOOR PROTECTOR

D3281-4 NOTES:

- 1) THERMOFORM WITH MOLD D3281-4T1 PER DART QSI 022; TRIM AS SHOWN
MINIMUM THICKNESS AFTER FORMING: 0.070" EXCEPT WHERE INDICATED
- 2) MATERIAL: LEXAN F6006, BLACK No. 701, 0.093" THICK
(REF DART SPEC MLEXS.093-F6006-02)
- 3) FINISH: NONE
- 4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.010 MAX
- 7) IDENTIFICATION: IDENTIFY WITH DART P/N "D3281-4" AND BATCH NUMBER "BXXXXX" ON SMOOTH SIDE OF PART USING VIBRATING STYLUS
- 8) WEIGHT: 0.87 lb

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D3281	SHEET 4 OF 4
APPROVED		TITLE	SCALE
DE APPR.		FLOOR PROTECTOR	NTS
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NOTE: Date & initial all entries

DRAWING NO. D3281	TITLE FLOOR PROTECTOR	REV. E	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D3281-E-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN qp	CHECKED K	MFG. APPR. K	APPROVED H		DE APPR. H		
DATE 10.02.24	DATE 10.02.25	DATE 10/02/25	DATE 10.02.25		DATE 10.02.25		

PURPOSE

ADD "D3281-xL08" MATERIAL OPTION. EXISTING PARTS TO BE IDENTIFIED AS "D3281-xL02"

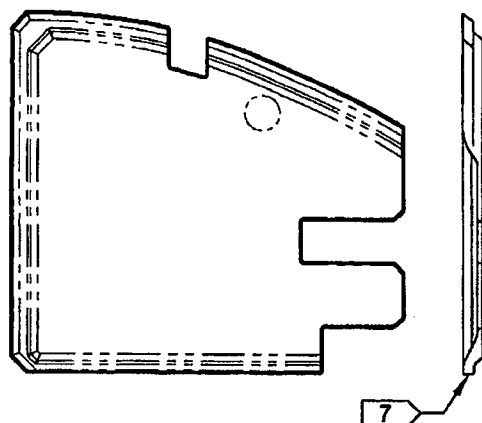
CHANGE

D3281-xL08 PARTS ARE EQUIVALENT TO THE RESPECTIVE "-x" PARTS EXCEPT AS DETAIL BELOW. THE MATERIAL, IDENTIFICATION, AND WEIGHT NOTES ARE AMENDED AS FOLLOWS:

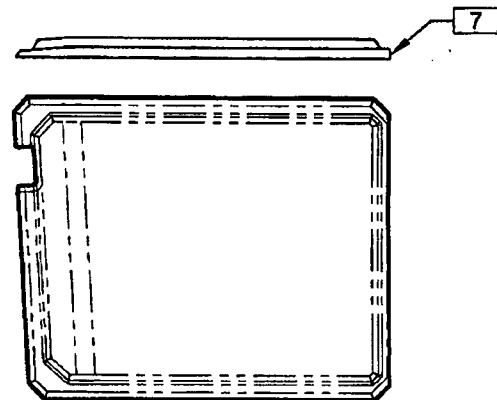
- 2) MATERIAL: -xL02 = LEXAN F6006, BLACK No. 701, 0.093" THICK (MLEXS.093-F6006-02)
-xL08 = LEXAN 90318 (PROTECT-A-GLAZE), 0.118 THICK, 112-CLEAR (MLEXS.118-90318-08)

- 7) IDENTIFICATION: IDENTIFY WITH DART P/N "D3281-xLxx" AND B/N "Bxxxxx" ON SMOOTH SIDE OF PART USING VIBRATING STYLUS.
FOR -xL08 PARTS, LOCATE ENGRAVING ALONG PERIMETER OF PART AS SHOWN.

- 8) WEIGHT: D3281-1L02/-2L02 = 0.95 lb D3281-1L08/-2L08 = 1.13 lb
D3281-1L02/-2L02 = 0.87 lb D3281-3L08/-4L08 = 1.05 lb



D3281-1L08 FLOOR PROTECTOR (SHOWN)
D3281-2L08 FLOOR PRETECTOR (OPPOSITE)
LOCATION OF ENGRAVING



D3281-3L08 FLOOR PROTECTOR (SHOWN)
D3281-4L08 FLOOR PRETECTOR (OPPOSITE)
LOCATION OF ENGRAVING

w/061577

RELEASED
2010-02-26
MAD

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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